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EXAMINER
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ART UNIT	PAPER NUMBER
2168	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/664,189	THORPE, JONATHAN RICHARD
	Examiner	Art Unit	
	MAHESH H. DWIVEDI	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 January 2008</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-23 and 27-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-23 and 27-30</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>09 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☒ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/5/2006 has been entered.

Priority

2.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Remarks

3.   Receipt of Applicant's Amendment, filed on 01/09/2008, is acknowledged. The amendment includes the cancellation of claims 24-26, and the amending of claims 1, 16-18, and 20-22.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The examiner specifically points to **"client system having logic"** as being directed towards nonstatutory subject matter.

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, function descriptive material per se.

Claim 23 is rejected for incorporating the deficiencies of independent claim 22.

Specification

7.   The objections raised in the office action mailed on 08/09/2007 have been
overcome by applicants arguments received on 01/09/2008.

Claim Rejections - 35 USC § 112

8.   The rejections raised in the office action mailed on 08/09/2007 have been
overcome by applicants amendments received on 01/09/2008.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

10.   Claims 20 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by
Fanning et al. (U.S. Patent 6,742,023).

11.   Regarding claim 20, **Fanning** teaches an information retrieval method
comprising:

A) one or more information item storage nodes connected to said data network (Column
5, lines 13-40);

B) storing a plurality of information items at each storage node (Column 42-59, Figure
3)

C) the storage node comprising: a store configured to store a plurality of information
items and an indexer (Column 5, lines 42-59, Figure 3);

D) the indexer configured to derive data representing an information item, the data
representing the information item, when stored, requiring less storage capacity than a
corresponding information item (Column 13, lines 6-24);

E) the indexer further configured to send the data representing the information item to
the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"one or more information item storage nodes connected to said data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"storing a plurality of information items at each storage node"** as "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably, the data file repository, or repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored. In the preferred embodiment, the data file repository 116 contains at least one directory on disk drives in a personal computer. In an alternative embodiment, the data file repository 116 may be a database. In another embodiment, the repository 116 may be a network accessible disk drive that the distribution application 100 can access. Alternatively, the repository 116 can also be a collection of directories enabling the user to organize files by type, classification, or attribute" (Column 5, lines 42-59). The examiner further notes that **Fanning** teaches **"the storage node comprising: a store configured to store a plurality of information items and an indexer"** as "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably, the data file repository, or repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored. In the preferred embodiment, the data file repository 116 contains at least one directory on disk drives in a personal computer. In an alternative embodiment, the data file repository 116 may be a database. In another embodiment, the repository 116 may be a

network accessible disk drive that the distribution application 100 can access.
Alternatively, the repository 116 can also be a collection of directories enabling the user
to organize files by type, classification, or attribute" (Column 5, lines 42-59). The
examiner further notes that **Fanning** teaches "**the indexer configured to derive data
representing an information item, the data representing the information item,
when stored, requiring less storage capacity than a corresponding information
item**" as "In an alternative embodiment shown in FIG. 9, the distribution application
1100 contains an audio file module 1102, which includes an audio file player 1106, as
well as an audio file converter 1104. The audio file player 1106 plays files located in the
data file repository 1116, while the audio file converter 1104 generates audio files either
by sampling data from a microphone or tape, or by converting data stored on a CD-
ROM or hard disk into a standard compressed audio file format. Converted audio files
are placed in the repository 1116, allowing other users in the community to access
these new audio files. In addition, the distribution application 1100 may also contain a
video file module 1108, which includes a video file player 1111, as well as a video file
converter 1110. Much as in the audio example above, video images (either still, or full
motion) are converted from external sources to compressed standard formats and are
placed in the repository 1116. Likewise, video files in the repository 1116 are displayed
to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further
notes that **Fanning** teaches "**the indexer further configured to send the data
representing the information item to the client system via said data network**" as
"FIG. 1 also shows a network 22 interconnected between the distribution applications
10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same
functionality. One user's file transfer client 14 can download files from another user's file
transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative
embodiment shown in FIG. 9, the distribution application 1100 contains an audio file
module 1102, which includes an audio file player 1106, as well as an audio file
converter 1104. The audio file player 1106 plays files located in the data file repository
1116, while the audio file converter 1104 generates audio files either by sampling data
from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into

a standard compressed audio file format. Converted audio files are placed in the
repository 1116, allowing other users in the community to access these new audio files.
In addition, the distribution application 1100 may also contain a video file module 1108,
which includes a video file player 1111, as well as a video file converter 1110. Much as
in the audio example above, video images (either still, or full motion) are converted from
external sources to compressed standard formats and are placed in the repository
1116. Likewise, video files in the repository 1116 are displayed to the user by the video
file player 1111" (Column 13, lines 6-24).

Regarding claim 23, **Fanning** further teaches a method comprising:
A) A computer readable medium including computer executable instructions, wherein
the instructions, when executed by a processor, cause the processor to perform
according to any one of claims 20 to 22 (Column 5, lines 42-53).

The examiner notes that **Fanning** teaches **"Computer software comprising
program code for carrying out a method according to any one of claims 20 to 22"**
as "FIG. 3 illustrates the system of the present invention having
a first distribution application 100 and a second distribution
application 212, a file index server 300, and a file index 302.
Each distribution application 100, 212 preferably includes: a
file transfer client 114, 214; a data file repository 116, 216;
a graphical user interface 118, 218; a file transfer server 120,
220 and an inventory module 130, 230. Preferably, the data file
repository, or repository, 116 shown in FIG. 3 is where the all
of the data files to be shared are stored. In the preferred
embodiment, the data file repository 116 contains at least one
directory on disk drives in a personal computer" (Column 5, lines 42-
53).

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner wherein the invention was made.

13.   Claims 1-17, 19, 21-22, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fanning et al.** (U.S. Patent 6,742,023) as applied to claims 20 and 23 and in view of **Kohonen et al.** (Article entitled "Self Organization of a Massive Document Collection").

14.   Regarding claim 1, **Fanning** teaches a system comprising:

A) a data network (Column 5, lines 13-40);

B) an information retrieval client system connected to said data network (Column 5, lines 13-40); and

C) a plurality of information item storage nodes connected to the data network (Column 5, lines 29-40);

D) wherein: each storage node comprises a store configured to store a plurality of information items and an indexer (Column 5, lines 42-59, Figure 3);

E) the indexer configured to derive data representing an information item, the data representing the information item, when stored, requiring less storage capacity than a corresponding information item (Column 13, lines 6-24);

F) the indexer further configured to send the data representing the information item to the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"a data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"an information retrieval client system connected to said data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another

user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner
further notes that **Fanning** teaches "<u>a plurality of</u> **information item storage nodes
connected to the data network**" as "It should be understood in this description that
although only two distribution applications 10, 12 communicating with each other are
explicitly discussed, any number of distribution applications may be utilized in the
system of the present invention. This is shown in FIG. 2 wherein a plurality of client
servers, each denoted as C/S 12, are connected to one another in a system. As shown
in FIG. 2, once a C/S 12 downloads a file from another C/S 12, it is able to distribute the
file downloaded to other C/S 12 applications in the system. The particular components
within system of the present invention will now be discussed" (Column 5, lines 29-40).
The examiner further notes that **Fanning** teaches "**wherein: each storage node
comprises a store configured to store a plurality of information items and an
indexer**" as "FIG. 3 illustrates the system of the present invention having a first
distribution application 100 and a second distribution application 212, a file index server
300, and a file index 302. Each distribution application 100, 212 preferably includes: a
file transfer client 114, 214; a data file repository 116, 216; a graphical user interface
118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably,
the data file repository, or repository, 116 shown in FIG. 3 is where the all of the data
files to be shared are stored. In the preferred embodiment, the data file repository 116
contains at least one directory on disk drives in a personal computer. In an alternative
embodiment, the data file repository 116 may be a database. In another embodiment,
the repository 116 may be a network accessible disk drive that the distribution
application 100 can access. Alternatively, the repository 116 can also be a collection of
directories enabling the user to organize files by type, classification, or attribute"
(Column 5, lines 42-59). The examiner further notes that **Fanning** teaches "<u>the
indexer configured to derive data representing an information item, the data
representing the information item, when stored, requiring less storage capacity
than a corresponding information item</u>" as "In an alternative embodiment shown in
FIG. 9, the distribution application 1100 contains an audio file module 1102, which
includes an audio file player 1106, as well as an audio file converter 1104. The audio file

player 1106 plays files located in the data file repository 1116, while the audio file

converter 1104 generates audio files either by sampling data from a microphone or

tape, or by converting data stored on a CD-ROM or hard disk into a standard

compressed audio file format. Converted audio files are placed in the repository 1116,

allowing other users in the community to access these new audio files. In addition, the

distribution application 1100 may also contain a video file module 1108, which includes

a video file player 1111, as well as a video file converter 1110. Much as in the audio

example above, video images (either still, or full motion) are converted from external

sources to compressed standard formats and are placed in the repository 1116.

Likewise, video files in the repository 1116 are displayed to the user by the video file

player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches

**"the indexer further configured to send the data representing the information item

to the client system via said data network"** as "FIG. 1 also shows a network 22

interconnected between the distribution applications 10, 12. As can be seen in FIG. 1,

all distribution applications 10, 12 have the same functionality. One user's file transfer

client 14 can download files from another user's file transfer server 20, and vice versa"

(Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the

distribution application 1100 contains an audio file module 1102, which includes an

audio file player 1106, as well as an audio file converter 1104. The audio file player

1106 plays files located in the data file repository 1116, while the audio file converter

1104 generates audio files either by sampling data from a microphone or tape, or by

converting data stored on a CD-ROM or hard disk into a standard compressed audio file

format. Converted audio files are placed in the repository 1116, allowing other users in

the community to access these new audio files. In addition, the distribution application

1100 may also contain a video file module 1108, which includes a video file player

1111, as well as a video file converter 1110. Much as in the audio example above, video

images (either still, or full motion) are converted from external sources to compressed

standard formats and are placed in the repository 1116. Likewise, video files in the

repository 1116 are displayed to the user by the video file player 1111" (Column 13,

lines 6-24).

Fanning does not explicitly teach:

G) said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to <u>the</u> data <u>representing the information item</u> received from said indexer of a storage node.

Kohonen, however, teaches **"said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to <u>the</u> data <u>representing the information item</u> received from said indexer of a storage node"** as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 2, **Fanning** further teaches a system comprising:

A) wherein said indexer at each storage node is operable to transmit data to said client system to said client system in batches (Column 12, lines 53-67-Column 13, lines 1-5, Figure 8);

B) each batch comprising at least data derived from some of those information items

stored at that storage node for which data has not previously been transmitted to said client system (Column 5, lines 60-64).

The examiner notes that **Fanning** teaches **"wherein said indexer at each storage node is operable to transmit data to said client system to said client system in batches"** as "Alternatively, as shown in FIG. 8, a parallel download module 1002 may be used to improve transfer rates of slow file transfer servers 1004, 1006. The parallel module 1002 would be connected to at least two file transfer servers 1004, 1006 in order to download a given data file. The file to be downloaded from each file transfer server 1004, 1006 must be identical. The parallel download module 1002 requests a different section of the given data file from each of the file transfer servers 1004, 1006 by using a file subsection download request. Thereafter, a completed download is reported when all sections have been successfully downloaded. This allows a high-bandwidth file transfer client 1000 to rapidly download parts of the same file from several lower bandwidth file transfer servers 1004, 1006" (Column 12, lines 53-67-Column 13, lines 1-5). The examiner further notes that **Fanning** teaches **"each batch comprising at least data derived from some of those information items stored at that storage node for which data has not previously been transmitted to said client system"** as "Files obtained from one distribution application 212 to another distribution application 100 are initially stored in the data file repository 116 immediately after being downloaded, making these newly downloaded data files available to other distribution applications (not shown)" (Column 5, lines 60-64).

Regarding claim 3, **Fanning** further teaches a system comprising:
A) wherein each batch of data comprises data derived from those information items stored at that storage node for which data has not previously been transmitted to said client system (Column 5, lines 60-64).

The examiner notes that **Fanning** teaches **"wherein each batch of data comprises data derived from those information items stored at that storage node for which data has not previously been transmitted to said client system"** as "Files obtained from one distribution application 212 to another distribution application 100 are

initially stored in the data file repository 116 immediately after being downloaded, making these newly downloaded data files available to other distribution applications (not shown)" (Column 5, lines 60-64).

Regarding claim 4, **Fanning** further teaches a system comprising:
A) wherein said indexer at each storage node is operable to transmit to said client system a batch of data derived from information items stored at that storage node in response to an information retrieval operation at said client system (Column 12, lines 53-67-Column 13, lines 1-5, Figure 8).

The examiner notes that **Fanning** teaches **"wherein said indexer at each storage node is operable to transmit to said client system a batch of data derived from information items stored at that storage node in response to an information retrieval operation at said client system"** as "Alternatively, as shown in FIG. 8, a parallel download module 1002 may be used to improve transfer rates of slow file transfer servers 1004, 1006. The parallel module 1002 would be connected to at least two file transfer servers 1004, 1006 in order to download a given data file. The file to be downloaded from each file transfer server 1004, 1006 must be identical. The parallel download module 1002 requests a different section of the given data file from each of the file transfer servers 1004, 1006 by using a file subsection download request. Thereafter, a completed download is reported when all sections have been successfully downloaded. This allows a high-bandwidth file transfer client 1000 to rapidly download parts of the same file from several lower bandwidth file transfer servers 1004, 1006" (Column 12, lines 53-67-Column 13, lines 1-5).

Regarding claim 5, **Fanning** further teaches a system comprising:
A) wherein said indexer at each storage node is operable to detect an information item which is modified or newly stored at that storage node (Column 6, lines 24-27); and
B) in response to such a detection, to send a batch of data derived from that information item to said client system (Column 6, lines 28-32).

The examiner notes that **Fanning** teaches **"wherein said indexer at each storage node is operable to detect an information item which is modified or newly stored at that storage node"** as "the last modification time shows that the directory has been modified recently, the inventory module 130 checks the contents of the directory to ascertain which files if any have been added or removed" (Column 6, lines 24-27). The examiner notes that **Fanning** teaches **"in response to such a detection, to send a batch of data derived from that information item to said client system"** as "Where the repository 116 is a database, the inventory module 130 uses database triggers to automatically monitor the repository 116 as well as receive file add and file remove events from the database as files are added and removed " (Column 6, lines 28-32).

Regarding claim 6, **Fanning** further teaches a system comprising:
A) wherein said data network is an internet network (Column 2, lines 6-8).

The examiner notes that **Fanning** teaches **" wherein said data network is an internet network"** as "Thus, it can be seen that there is a long-standing need on the Internet for a system that facilitates the distribution of data files in a community of users" (Column 2, lines 6-8).

Regarding claim 7, **Fanning** further teaches a system comprising:
A) wherein one or more of said storage nodes are internet search servers (Column 10, lines 49-65).

The examiner notes that **Fanning** teaches **" wherein said data network is an internet network"** as "FIG. 6 shows the preferred embodiment, where the system of the present invention utilizes a search module 806 for searching the file index, in which a search request submitted by the distribution application 800 is processed and a search response, containing file descriptions matching the search request, is returned to that distribution application 800. When a user wishes to locate a particular data file, the search module 800 constructs a search request to the file index 810 based on the search criteria specified by the user through the distribution application 800. The search

criteria can contain a complete filename or a subsection of the filename, limitations on any of the fields of ancillary data, the file size, or limitations on the file transfer server including bandwidth to network or percentage of successful downloads. The index server 808 executes the search request, prunes the file descriptions as appropriate, and displays the search response to the users" (Column 10, lines 49-65).

Regarding claim 8, **Fanning** further teaches a system comprising:
A) wherein said information items are at least partially textual (Column 10, lines 34-36); and
B) said data derived form a stored information item comprises the whole of said textual content of that information item (Column 10, lines 34-36).

The examiner notes that **Fanning** teaches "**wherein said information items are at least partially textual**" as " The index server also optionally stores information for each file description such as: filename; file data type (text, audio, images, video, etc)" (Column 10, lines 34-36). The examiner further notes that **Kohonen** teaches "**said data derived form a stored information item comprises the whole of said textual content of that information item**" as " The index server also optionally stores information for each file description such as: filename; file data type (text, audio, images, video, etc)" (Column 10, lines 34-36).

Regarding claim 9, **Fanning** further teaches a system comprising:
A) wherein said data derived from a stored information item comprises textual data indicative of said content of the stored information item (Column 5, lines 66-67-Column 6, lines 1-8).

The examiner notes that **Fanning** teaches "**wherein said data derived from a stored information item comprises textual data indicative of said content of the stored information item**" as "A description of each file placed in the file repository 116 is automatically made available by an inventory module 130 in the distribution application 100 to other distribution applications 212 in the community. In the preferred embodiment, the inventory module 130 verifies that each file is a valid file of the types of

files available for distribution. The inventory module 130 also extracts a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file and the quality rating of the data file" (Column 5, lines 66-67-Column 6, lines 1-8).

Regarding claim 10, **Fanning** does not explicitly teach a system comprising:
A) wherein said client system comprises a graphical user interface for displaying a representation of at least some of said nodes as a two-dimensional display array of display points within a display area on. a user display.

Kohonen, however, teaches "**wherein said client system comprises a graphical user interface for displaying a representation of at least some of said nodes as a two-dimensional display array of display points within a display area on a user display**" as "documents are presented as points on a two- dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations" (Page 574) and "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 11, **Fanning** does not explicitly teach a system comprising:
A) wherein said client system comprises: (i) a user control for defining a two-dimensional region of said display area; and
B) a detector for detecting those display points lying within said two-dimensional region of said display area.

Kohonen, however, teaches **"wherein said client system comprises: (i) a user control for defining a two-dimensional region of said display area"** as "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583) and "keyword search" (Page 584) and **"a detector for detecting those display points "lying within said two-dimensional region of said display area"** as "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583) and "An example of performing a keyword search is depicted in Fig. 6" (Page 584, Section: Keyword Search).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 12, **Fanning** does not explicitly teach a system comprising: A) wherein said graphical user interface is operable to display a list of data representing information items, being those information items mapped onto nodes corresponding to display points displayed within said two-dimensional region of said display area.

Kohonen, however, teaches **"wherein said graphical user interface is operable to display a list of data representing information items, being those information items mapped onto nodes corresponding to display points displayed within said two-dimensional region of said display area"** as "This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583,

Section C: Formation of the Document Map) and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map). The examiner further notes that Figure 5 clearly shows an interface With nodes mapping different documents.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 13, **Fanning** does not explicitly teach a system comprising:
A) wherein said client system comprises a user control for choosing one or more information items from said list; and
B) said graphical user interface being operable to alter manner of display within said display area of display points corresponding to selected information items.

Kohonen, however, teaches **"wherein said client system comprises a user control for choosing one or more information items from said list"** as "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583), "This time includes finding the keywords to label the map, forming the WWW- pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map) and **"said graphical user interface being operable to alter manner of display within said display area of display points corresponding to selected information items"** as "Forming the user interface automatically took an additional week of computation. This

time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583), "This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map). The examiner further notes that Figure 6 clearly shows the ability to alter the interface by zooming in (see "Click any area on the map to get a zoomed view!").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 14, **Fanning** further teaches a system comprising:
A) wherein said data derived from an information item includes an identification of said storage location of that information item (Column 3, lines 8-12).

The examiner notes that **Fanning** teaches **"wherein said data derived from an information item includes an identification of said storage location of that information item"** as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12).

Regarding claim 15, **Fanning** does not explicitly teach a system comprising:
A) wherein said identification comprises a universal resource indicator (URI).

Kohonen teaches **"wherein said identification comprises a universal resource indicator (URI)"** as "This time includes finding the keywords to label the map,

forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map) and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 16, **Fanning** teaches an information storage node comprising:
A) said storage node being connected via a data network to an information retrieval client system (Column 5, lines 13-40); and
C) the storage node comprising: a store configured to store a plurality of information items and an indexer (Column 5, lines 42-59, Figure 3);
E) the indexer configured to derive data representing an information item, the data representing the information item, when stored, requiring less storage capacity than a corresponding information item (Column 13, lines 6-24);
F) the indexer further configured to send the data representing the information item to the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"said storage node being connected via a data network to an information retrieval client system"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"the storage node comprising: a store configured to store a plurality of information items and an indexer"** as "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution

application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably, the data file repository, or repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored. In the preferred embodiment, the data file repository 116 contains at least one directory on disk drives in a personal computer. In an alternative embodiment, the data file repository 116 may be a database. In another embodiment, the repository 116 may be a network accessible disk drive that the distribution application 100 can access. Alternatively, the repository 116 can also be a collection of directories enabling the user to organize files by type, classification, or attribute" (Column 5, lines 42-59). The examiner further notes that **Fanning** teaches "**the indexer configured to derive data representing an information item, the data representing the information item, when stored, requiring less storage capacity than a corresponding information item**" as "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches "**the indexer further configured to send the data representing the information item to the client system via said data network**" as "FIG. 1 also shows a network 22 interconnected between the distribution applications

10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

B) including a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received from said storage node.

Kohonen, however, teaches **"including a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received from said storage node"** as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and

the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 17, **Fanning** teaches an information retrieval client system comprising:

A) said client system being connectable via a data network to one or more information item storage nodes each comprising a store for storing a plurality of information items and an indexer (Column 5, lines 13-40, lines 42-59, Figure 3);

B) the indexer configured to derive data representing an information item, the data representing the information item, when stored, requiring less storage capacity than a corresponding information item (Column 13, lines 6-24);

C) the indexer further configured to send the data representing the information item to the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"said client system being connectable via a data network to one or more information item storage nodes each comprising a store for storing a plurality of information items and an indexer"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably, the data file repository, or

repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored. In the preferred embodiment, the data file repository 116 contains at least one directory on disk drives in a personal computer. In an alternative embodiment, the data file repository 116 may be a database. In another embodiment, the repository 116 may be a network accessible disk drive that the distribution application 100 can access. Alternatively, the repository 116 can also be a collection of directories enabling the user to organize files by type, classification, or attribute" (Column 5, lines 42-59). The examiner further notes that **Fanning** teaches "**the indexer configured to derive data representing an information item, the data representing the information item, when stored, requiring less storage capacity than a corresponding information item**" as "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches "**the indexer further configured to send the data representing the information item to the client system via said data network**" as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file

module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

E) the client system comprising a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received from said indexer of a storage node.

Kohonen, however, teaches "**the client system comprising a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received from said indexer of a storage node**" as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching

Kohonen 's would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 19, **Fanning** further teaches an information retrieval client system comprising:

A) A video acquisition and/or processing apparatus comprising the client system according to claim 17 (Column 13, lines 16-24).

The examiner notes that **Fanning** teaches **"A video acquisition and/or processing apparatus comprising the client system according to claim 17"** as "video retrieval, our current interfaces segment video into shots; and represent them with single frames" (Page 1 ,Section 1, Figure 1).

Regarding claim 21, **Fanning** teaches a method comprising:

B) said method comprising the steps of: storing a plurality of information items (Column 5, lines 13-40); and

C) <u>generating data representing the information items</u> (Column 13, lines 6-24);

D) <u>the data representing the information items, when stored, requiring less storage capacity than a corresponding information item</u> (Column 13, lines 6-24);

E) transmitting <u>the</u> data <u>representing the information item</u> to the client system via the data network (Column 5, lines 13-40, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"said method comprising the steps of: storing a plurality of information items"** as "It should be understood in this description that although only two distribution applications 10, 12 communicating with each other are explicitly discussed, any number of distribution applications may be utilized in the system of the present invention. This is shown in FIG. 2 wherein a plurality of client servers, each denoted as C/S 12, are connected to one another in a system. As shown in FIG. 2, once a C/S 12 downloads a file from another C/S 12, it is able to distribute the file downloaded to other C/S 12 applications in the system. The particular components within system of the present invention will now be discussed"

(Column 5, lines 29-40). The examiner further notes that **Fanning** teaches **"generating data representing the information items"** as "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"the data representing the information items, when stored, requiring less storage capacity than a corresponding information item"** as "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning**

teaches **"transmitting <u>the</u> data <u>representing the information item</u> to the client system via the data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:
A) said storage node being connectable via a data network to an information retrieval client system having logic, responsive to data received from the storage node, for generating a node position in respect of each information item represented by the received data.

Kohonen, however, teaches **"said storage node being connectable via a data network to an information retrieval client system having logic, responsive to data received from the storage node, for generating a node position in respect of each information item represented by the received data"** as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required

was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time

includes finding the keywords to label the map, forming the WWW-ages that are used in

exploring the map, and indexing the map units for keyword searches" (Page 583,

Section C: Formation of the Document Map), and "Given a search description, the

matching units are found from the index and the best matches are returned and

displayed as circles on the map" (Page 584, Section 2: Keyword Search).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of the cited references because teaching

Kohonen 's would have allowed **Fanning's** to provide a method for help a client

understand the true meaning of individual texts and finding information of the highest

interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 22, **Fanning** teaches a method comprising:

A) said client system being connectable via a data network to one or more information

item storage nodes each comprising a store for storing a plurality of information items

and an indexer (Column 5, lines 13-59)

B) the indexer configured to derive data representing an information item (Column 13,

lines 6-24);

C) the data representing the information item, when stored, requiring less storage

capacity than a corresponding information item (Column 13, lines 6-24);

D) transmitting the data representing the information item to the client system via the

data network (Column 5, lines 13-40, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"said client system being**

connectable via a data network to one or more information item storage nodes

each comprising a store for storing a plurality of information items and an

indexer" as "FIG. 1 also shows a network 22 interconnected between the distribution

applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have

the same functionality. One user's file transfer client 14 can download files from another

user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "FIG. 3

illustrates the system of the present invention having a first distribution application 100

and a second distribution application 212, a file index server 300, and a file index 302.
Each distribution application 100, 212 preferably includes: a file transfer client 114, 214;
a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server
120, 220 and an inventory module 130, 230. Preferably, the data file repository, or
repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored.
In the preferred embodiment, the data file repository 116 contains at least one directory
on disk drives in a personal computer. In an alternative embodiment, the data file
repository 116 may be a database. In another embodiment, the repository 116 may be a
network accessible disk drive that the distribution application 100 can access.
Alternatively, the repository 116 can also be a collection of directories enabling the user
to organize files by type, classification, or attribute" (Column 5, lines 42-59). The
examiner notes that **Fanning** teaches "**the indexer configured to derive data
representing an information item**" as "In an alternative embodiment shown in FIG. 9,
the distribution application 1100 contains an audio file module 1102, which includes an
audio file player 1106, as well as an audio file converter 1104. The audio file player
1106 plays files located in the data file repository 1116, while the audio file converter
1104 generates audio files either by sampling data from a microphone or tape, or by
converting data stored on a CD-ROM or hard disk into a standard compressed audio file
format. Converted audio files are placed in the repository 1116, allowing other users in
the community to access these new audio files. In addition, the distribution application
1100 may also contain a video file module 1108, which includes a video file player
1111, as well as a video file converter 1110. Much as in the audio example above, video
images (either still, or full motion) are converted from external sources to compressed
standard formats and are placed in the repository 1116. Likewise, video files in the
repository 1116 are displayed to the user by the video file player 1111" (Column 13,
lines 6-24). The examiner further notes that **Fanning** teaches "**the data representing
the information item, when stored, requiring less storage capacity than a
corresponding information item**" as "In an alternative embodiment shown in FIG. 9,
the distribution application 1100 contains an audio file module 1102, which includes an
audio file player 1106, as well as an audio file converter 1104. The audio file player

1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"transmitting the data representing the information item to the client system via the data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

E) said method comprising: generating a node position in respect of each information item represented by said received data responsive to the data representing the information item received from said indexer of a storage node.

Kohonen, however, teaches "**said method comprising: generating a node position in respect of each information item represented by said received data responsive to the data representing the information item received from said indexer of a storage node**" as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 27, **Fanning** further teaches a method comprising:
A) wherein the data is metadata derived from the information item (Column 10, lines 34-36).

The examiner notes that **Fanning** teaches "**wherein the data is metadata derived from the information item**" as "The index server also optionally stores information for each file description such as: filename; file data type (text, audio, images, video, etc)" (Column 10, lines 34-36).

Regarding claim 28, **Fanning** does not explicitly teach a system comprising:
A) wherein the data is the information item with all the stop words removed.

Kohonen, however, teaches **"wherein the data is the information item with all the stop words removed"** as " The words occurring less than 50 times in the whole corpus, as well as a set of common words in a stopword list of 1335 words were removed. The remaining vocabulary consisted of 43 222 words. Finally, we omitted the 122 524 abstracts in which less than five words remained" (Page 581).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 29, **Fanning** does not explicitly teach a system comprising: A) wherein the data is a list of all stem words included in the information item.

Kohonen, however, teaches **"wherein the data is a list of all stem words included in the information item"** as " All words were converted to their base form using a stemmer" (Page 581).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 30, **Fanning** does not explicitly teach a system comprising: A) wherein the data is a feature vector derived from the metadata.

Kohonen, however, teaches **"wherein the data is a feature vector derived from the metadata"** as "Any of the basic projection methods also can be used to organize textual data items, such as documents, if their contents are described statistically as some kind of metric feature vectors. For instance, if the collection of

words used in a document is described as a histogram, the latter can serve as the input feature vector on the basis of which the document collection can be organized" (Page 574).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

14.   Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fanning et al.** (U.S. Patent 6,742,023) as applied to claims 20 and 23 and in view of **Kohonen et al.** (Article entitled "Self Organization of a Massive Document Collection") as applied to claims 1-17, 19, 21-22, and 27-30, and further in view of **Derthick** (Article entitled "Interfaces for Palmtop Image Search").

15.   Regarding claim 18, **Fanning** and **Kohonen** do not explicitly teach an information retrieval client system comprising:

A) A portable data processing device comprising the client system according to claim 17.

   Derthick, however, teaches "**A portable data processing device comprising the client system according to claim 17**" as "palmtop interfaces" (Page 1,Section 2, Figure 1) and "video retrieval, our current interfaces segment video into shots, and represent them with Single frames" (Page 1 ,Section 1, Figure 1).

   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Fanning's** and **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Response to Arguments

16.   Applicant's arguments filed on 01/09/2008 have been fully considered but they are not persuasive.

Applicant argues on pages 10-11, that **"With regard to the use of term "logic",
it is respectfully submitted that this is not one of the steps of the claim, but is
simply in the preamble"** and **"no express statement has been provided as to how
the language of the claims have been interpreted"**. However, the examiner wishes
to state that independent claim 21 recites "logic". As explained in the instant office
action, "logic" is non-statutory subject matter, and as a result, claim 21 is not in
compliance with the requirements of 35 U.S.C. 101. Moreover, in the interview with
applicant's representative dated 04/04/2008, the examiner indicated that the removal of
"logic" from the preamble would overcome the 101 rejection.

Applicant's arguments with respect to claims 1-23, and 27-30 have been
considered but are moot in view of the new ground(s) of rejection.

Conclusion

17.   The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure.

U.S. Patent 6,636,862 issued to **Lundahl et al.** on 21 October 2003. The subject
matter disclosed therein is pertinent to that of claims 1-23, and 27-30 (e.g., methods to
use SOM mapping).

U.S. PGPUB 2003/0208485 issued to **Castellanos** on 06 November 2003. The
subject matter disclosed therein is pertinent to that of claims 1-23, and 27-30 (e.g.,
methods to use SOM mapping).

U.S. Patent 7,017,186 issued to **Day** on 21 March 2006. The subject matter
disclosed therein is pertinent to that of claims 1-23, and 27-30 (e.g., methods to use
SOM mapping).

Contact Information

18.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-
2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the
organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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